

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A method of driving a plasma display panel, the panel comprising:

a plurality of mutually parallel display electrodes including first display electrodes and second display electrodes, the second display electrodes being parallel to and alternating with the first display electrodes,

and a plurality of mutually parallel data electrodes perpendicular to the display electrodes,

wherein intersection points of the display electrodes and the data electrodes define a plurality of display cells,

the method comprising the steps of ;

(a) sequentially applying a write discharge pulse of a first potential difference between the first display electrodes and the data electrodes, to the first display electrodes; and

(b) sequentially applying a write discharge pulse of a second potential difference, having a polarity opposite that of the first potential difference, between the second display electrodes and the data electrodes, to the second display electrodes.

2. (previously presented): The method as set forth in claim 1, wherein

step (a) includes sequentially applying a negative scan pulse having a negative polarity with respect to a first base potential, to the first display electrodes, while applying a positive data pulse having a positive polarity with respect to a second base potential, to the data electrodes; and

step (b) includes sequentially applying a positive scan pulse having a positive polarity with respect to a third base potential, to the second display electrodes, while applying a negative data pulse having a negative polarity with respect to a fourth base potential, to the data electrodes.

3. (previously presented): The method as set forth in claim 2, wherein:

the amplitude of the negative scan pulse and the amplitude of the positive scan pulse are different; or

the amplitude of the negative data pulse and the amplitude of the positive data pulse are different; or

the amplitude of the negative scan pulse and the amplitude of the positive scan pulse are different and the amplitude of the negative data pulse and the amplitude of the positive data pulse are different.

4. (previously presented): The method as set forth in claim 2, wherein:

the third base potential is higher than the first base potential:

the second base potential and the negative data pulse are of equal potential; and

the fourth base potential and the positive data pulse are of equal potential.

5. (previously presented): The method as set forth in claim 2, wherein:

the first base potential and the third base potential are equal; and

the second base potential and the fourth base potential are equal.

6. (previously presented): The method as set forth in claim 2, further comprising the steps of:

when the negative scan pulse is applied to the first display electrode, applying a write cancel pulse to one of two second display electrodes next to the first display electrode to which the negative scan pulse is applied; and

when the positive scan pulse is applied to a second display electrode, applying a write cancel pulse to one of the two display electrodes next to the second display electrode to which the positive scan pulse is applied.

7. (previously presented): The method as set forth in claim 1, further comprising, after all of the write discharge pulses are applied, carrying out, sustain discharges between all of the first display electrodes and neighboring second display electrodes.

8. (previously presented): The method as set forth in claim 1, further comprising, before any write discharge pulses are applied, resetting electrical charge conditions in all display cells

9. (previously presented): The method as set forth in claim 8, wherein the resetting of the electrical charge conditions includes at least one of a sustain elimination discharge resetting only those display cells that had sustain discharged in a previous sustain discharge period, and a priming discharge causing discharges in all display cells.

10. (currently amended): The method as set forth in claim 9, wherein:
the priming discharge occurs simultaneously in all display cells; and
~~either or both of rising and falling times of the~~ a rate of voltage change of a pulse that
causes the priming discharge is below 10 V/ μ s.

11. (previously presented): The method as set forth in claim 1, wherein the data electrodes form an island in each display cell, and said island-formed parts are positioned opposite the display electrodes that carry out the write discharges.

12. (previously presented): A apparatus that drives a plasma display panel, comprising:
first and second display electrodes which are alternately disposed with respect to each other;
data electrodes formed perpendicular to the first and second display electrodes; and

a control circuit that applies a first write discharge pulse having a first potential difference to the first display electrodes, wherein the first potential difference is a potential difference between the first display electrodes and the data electrodes,

wherein the control circuit applies a second write discharge pulse having a second potential difference to the second display electrodes, wherein the second potential difference is a potential difference between the second display electrodes and the data electrodes and has a polarity that is opposite to a polarity of the first potential difference.

13. (previously presented): The apparatus as set forth in claim 12, wherein the control circuit applies the first write discharge pulse by applying a negative scan pulse having a negative polarity with respect to a first base potential, to the first display electrodes, while applying a positive data pulse having a positive polarity with respect to a second base potential, to the data electrodes; and

the control circuit applies the second write discharge pulse by applying a positive scan pulse having a positive polarity with respect to a third base potential, to the second display electrodes, while applying a negative data pulse having a negative polarity with respect to a fourth base potential, to the data electrodes.

14. (previously presented): The apparatus as set forth in claim 13, wherein the amplitude of the negative scan pulse and the amplitude of the positive scan pulse are different.

15. (previously presented): The apparatus as set forth in claim 13, wherein the amplitude of the negative data pulse and the amplitude of the positive data pulse are different.

16. (previously presented): The apparatus as set forth in claim 13,
wherein the amplitude of the negative scan pulse and the amplitude of the positive scan pulse are different, and

wherein the amplitude of the negative data pulse and the amplitude of the positive data pulse are different.

17. (previously presented): The apparatus as set forth in claim 13,
wherein the third base potential is higher than the first base potential,
wherein the second base potential and the negative data pulse are of equal potential, and
wherein the fourth base potential and the positive data pulse are of equal potential.

18. (previously presented): The apparatus as set forth in claim 13,
wherein the first base potential and the third base potential are equal, and
wherein the second base potential and the fourth base potential are equal.

19. (previously presented): The apparatus as set forth in claim 13, wherein
when the control circuit applies the negative scan pulse to a first display electrode, the control circuit applies a write cancel pulse to one of two second display electrodes next to the first display electrode to which the negative scan pulse is applied; and

when the control circuit applies the positive scan pulse to a second display electrode, the control circuit applies a write cancel pulse to one of the two first display electrodes next to the second display electrode to which the positive scan pulse is applied.

20. (previously presented): The apparatus as set forth in claim 12, wherein, after all of the write discharge pulses are applied, the control circuit carries out sustain discharges between all of the first display electrodes and neighboring second display electrodes.

21. (previously presented): The apparatus as set forth in claim 12, wherein, before any write discharge pulses are applied, the control circuit establishes resetting electrical charge conditions in all display cells respectively defined by intersection points of the display electrodes and the data electrodes.

22. (previously presented): The apparatus as set forth in claim 21, wherein the resetting of the electrical charge conditions comprises sustain elimination discharge resetting only those display cells that had sustain discharged in a previous sustain discharge period.

23. (previously presented): The apparatus as set forth in claim 21, wherein the resetting of the electrical charge conditions comprises performing a priming discharge causing discharges in all display cells.

24. (previously presented): The apparatus as set forth in claim 23,
wherein the priming discharge occurs simultaneously in all display cells; and
wherein a rate of voltage change of a pulse that causes the priming discharge is below 10 V/ μ s.

25. (previously presented): The apparatus as set forth in claim 12,
wherein the data electrodes form an island in each display cell, and
wherein said island-formed parts are positioned opposite the display electrodes that carry out the write discharges.